

### **REMARKS**

Claims 1 through 20 are pending in the subject application. Claims 1-13 stand rejected under 35 U.S.C. 103(a). Claim 1 has been amended. Claims 14-20 have been newly added.

The Applicants appreciate the Examiner's thorough examination of the subject application. Furthermore, the Applicants appreciate the Examiner granting a telephone interview on October 29, 2003. However, the Applicants respectfully request reconsideration of the subject application based on the above amendments and the following remarks.

### **35 U.S.C. § 103(a) REJECTIONS**

The Examiner has rejected claims 1-3, 5-7, 9, and 10 under 35 USC 103(a) as being unpatentable over U.S. Patent Number 6,115,016 to Yoshihara, et al. ("Yoshihara" or the "Yoshihara Reference") in view of U.S. Patent Number 6,509,887 to Kondoh, et al. ("Kondoh" or the "Kondoh Reference"); claims 4 and 8 under 35 USC 103(a) as being unpatentable over Yoshihara in view of Kondoh further in view of published Japanese Patent Application Number 04-058708 to Ito, et al. ("Ito" or the "Ito Reference"); and claims 11-13 under 35 USC 103(a) as being unpatentable over Yoshihara in view of Kondoh further in view of U.S. Patent Number 6,317,181 to Hoshino ("Hoshino" or the "Hoshino Reference"). The Applicants respectfully traverse these rejections for the reasons provided in greater detail below.

### **Claims 1-3, 5-7, 9 and 10**

The invention as claimed discloses an image display apparatus that provides uniform brightness by successively changing the light modulation state and reversing successive display frames so that picture elements ("pixels") have substantially the

same light modulation state, see, e.g., Specification, page 30, lines 1-5. Specifically, the image display apparatus of the present invention includes a light emitting section that (1) is switched ON and OFF exactly once in each display frame; (2) wherein addressing scanning for the pixels is performed in each display frame while backlighting is OFF; and (3) the OFF state and the sequence of address scanning is reversed every one or more display frames.

However, the combination of the Yoshihara reference and the Kondoh reference does not teach, mention or suggest all three of these limitations. First, Yoshihara teaches a liquid crystal display ("LCD") device having a display control method that drives ON/OFF operation more than once in each display frame. As shown in FIG. 4 of Yoshihara, each of the light emitting sections ("LES") is turned ON/OFF twice per display frame or, alternatively, for a white display, the LES is ON for the entire display frame. See, e.g., *Id.*, col. 6, line 53 to col. 7, line 32; col. 8, lines 54-60. Thus, Yoshihara teach away from a light emitting section that "is switched ON-OFF exactly once in every display frame."

Kondoh, likewise, does not teach, mention or suggest this feature. Kondoh discloses an LCD device and driving method in which the scanning period, during which light is emitted, is divided into two periods. A first period includes a selection period for determining a display state, i.e., white, and a non-selection period for holding the selected (white) display state and a second period includes a selection period for forcing the display to black and a non-selection period for holding the black display state. See, e.g., Kondoh, Abstract. Thus, Kondoh does not teach, mention or suggest switching the light emitting section ON and OFF exactly once in each display frame.

Second, both Yoshihara and Kondoh are silent regarding performing addressing scanning in each display frame while backlighting is OFF. There is nothing in the specifications of either reference that suggests or mentions performing address scanning while the backlight is OFF.

In short, it is respectfully submitted that, claims 1-3, 5-7, 9, and 10 are not made obvious by the cited references, and further, satisfy all of the requirements of 35 U.S.C. 100, et seq., especially § 103(a). Accordingly, claims 1-3, 5-7, 9, and 10 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

#### Claims 4 and 8

For the reasons provided above showing that Yoshihara in view of Kondoh do not teach, mention or suggest claim 1 of the present invention, the same references, therefore, cannot make obvious claims depending therefrom. Moreover, the Ito reference, and, more specifically, Ito FIG. 2, cannot make up for the deficiencies of the Yoshihara and Kondoh references. Indeed, Ito does not teach, mention or suggest successively changing the light modulation state and reversing successive display frames so that picture elements ("pixels") have substantially the same light modulation state or addressing scanning when the backlight is OFF or switching the light emitting section ON and OFF exactly once in each display frame.

In short, it is respectfully submitted that, claims 4 and 8 are not made obvious by any of the cited references, and further, satisfy all of the requirements of 35 U.S.C. 100, et seq., especially § 103(a). Accordingly, claims 4 and 8 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

#### Claims 11-13

For the reasons provided above showing that Yoshihara in view of Kondoh do not teach, mention or suggest claim 1 of the present invention, the same references, therefore, cannot make obvious claims depending therefrom. Furthermore, the Hoshino reference cannot make up for the deficiencies of the Yoshihara and Kondoh references because Hoshino does not teach, mention or suggest successively changing

the light modulation state and reversing successive display frames so that picture elements ("pixels") have substantially the same light modulation state or addressing scanning when the backlight is OFF or switching the light emitting section ON and OFF exactly once in each display frame.

In short, it is respectfully submitted that, claims 11-13 are not made obvious by any of the cited references, and further, satisfy all of the requirements of 35 U.S.C. 100, et seq., especially § 103(a). Accordingly, claims 11-13 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claims 14-20

Claims 14-20 have been added at the Examiner's suggestion as allowable subject matter.

The Applicants believe that no additional fee is required for consideration of the within Response. However, if for any reason the fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,

Date: November 24, 2003

By: 

George W. Hartnell, III  
Reg No. 42,639

EDWARDS & ANGELL, LLP  
P.O. Box 9169  
Boston, MA 02209  
Tel.: (617) 517-5523  
Customer No. 21874  
351716